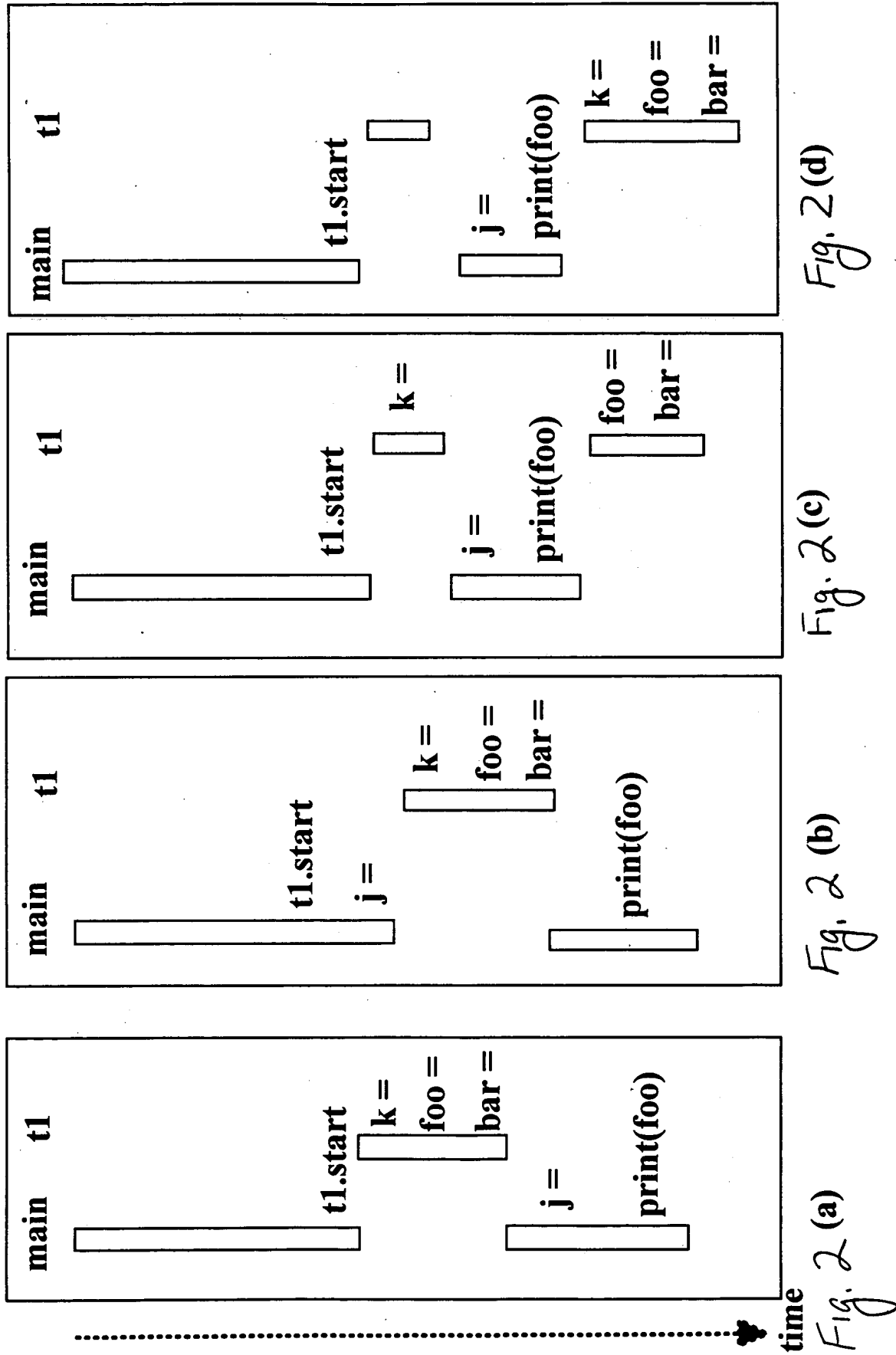


Fig. 1

*superceeded by
drawings
received
06-02-00*



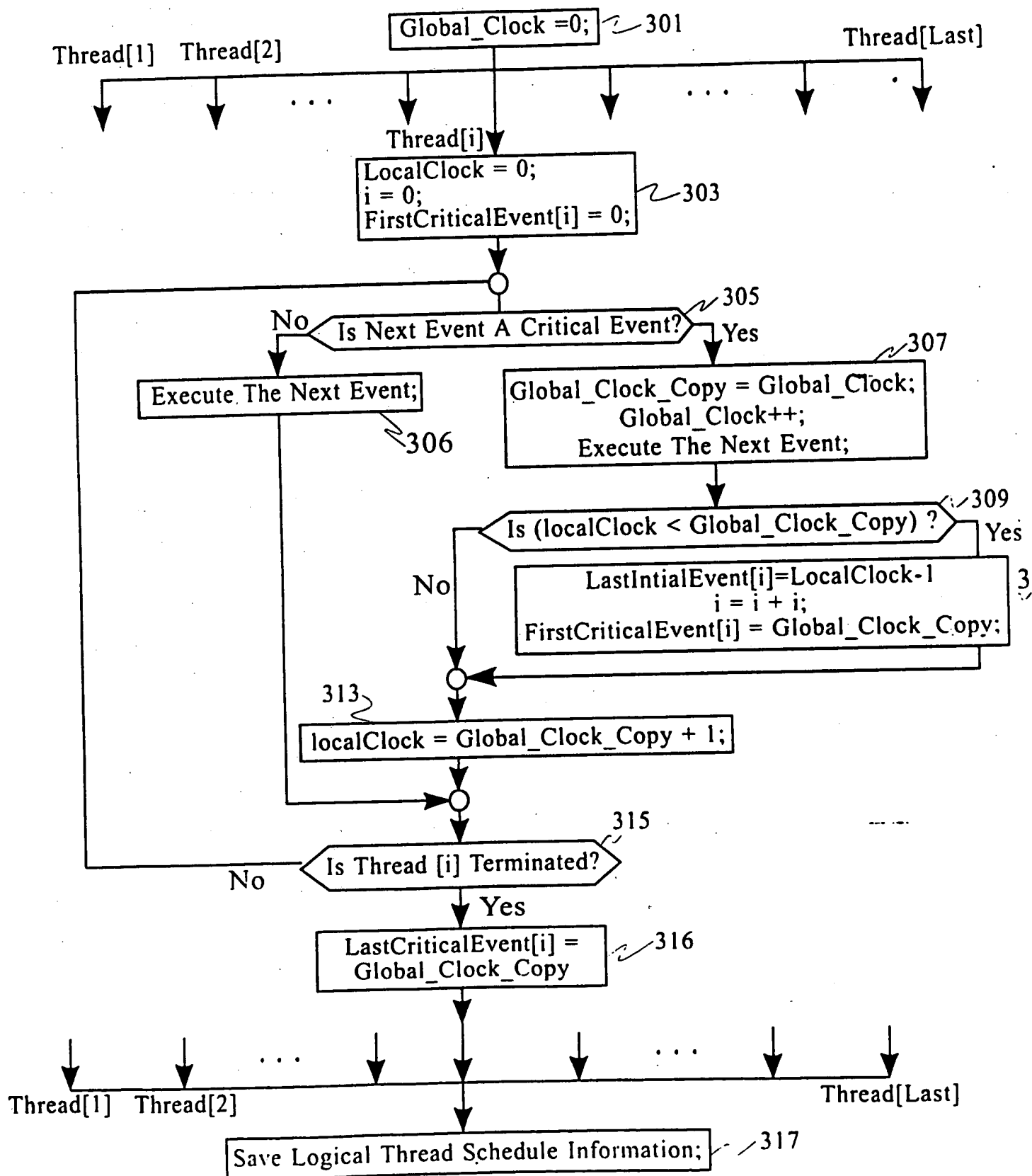


Fig. 3A

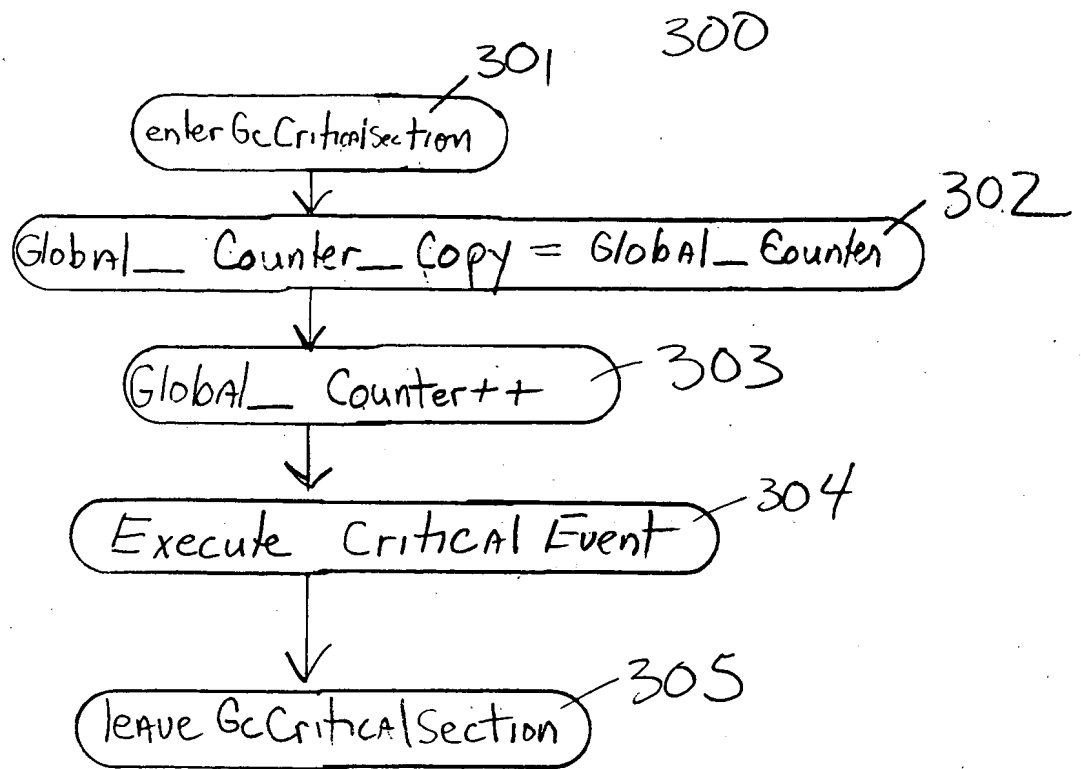
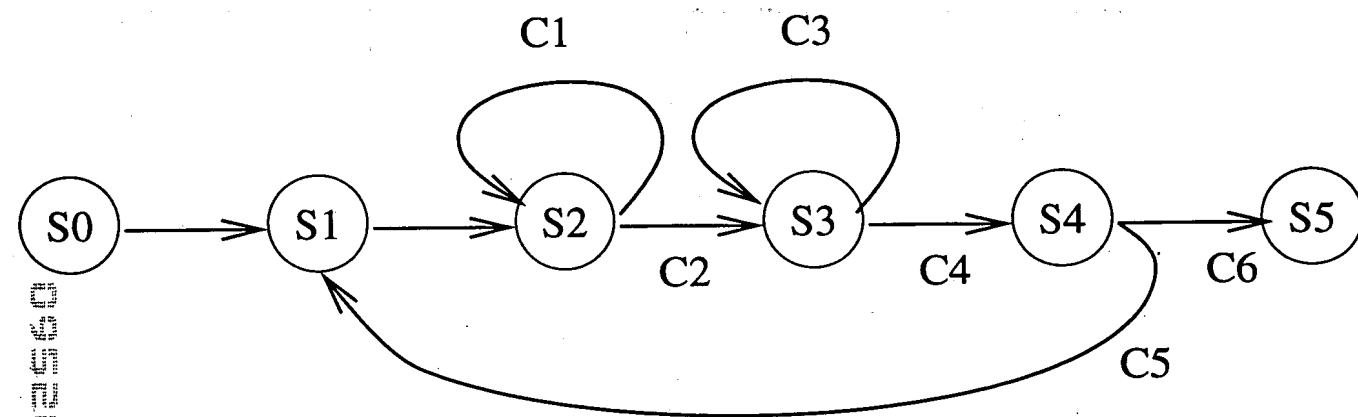


Fig. 3B



START, $i = 0$

update FirstCriticalEvent(i) and

LastCriticalEvent(i)

yield the thread schedule

execute event.

CriticalEvent increment global_counter

$i = i + 1$

END

C1: $\text{global_counter} < \text{FirstCriticalEvent}(i)$

C2: not C1

C3: $\text{global_counter} \leq \text{LastCriticalEvent}(i)$

C4: not C3

C5: $i \leq \text{last interval}$

C6: not C5

FIG. 5

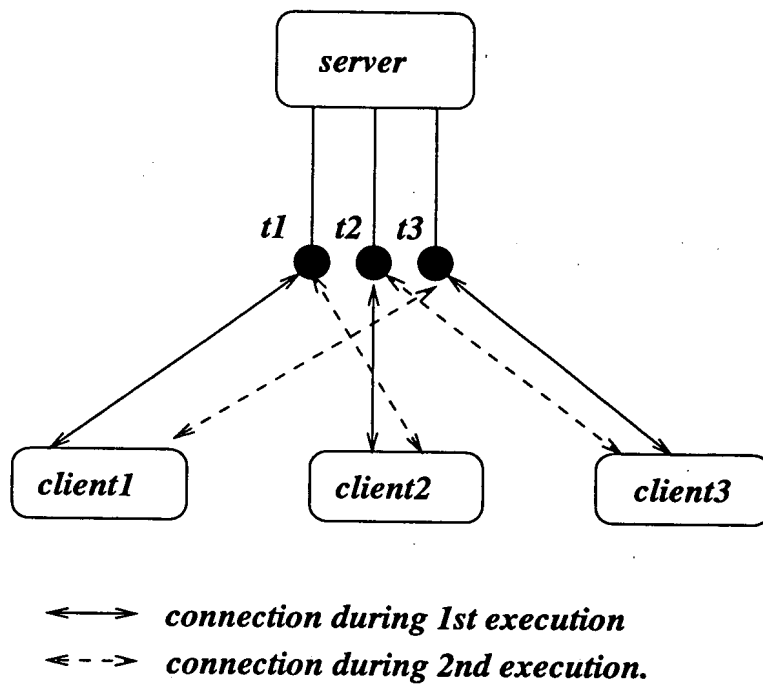
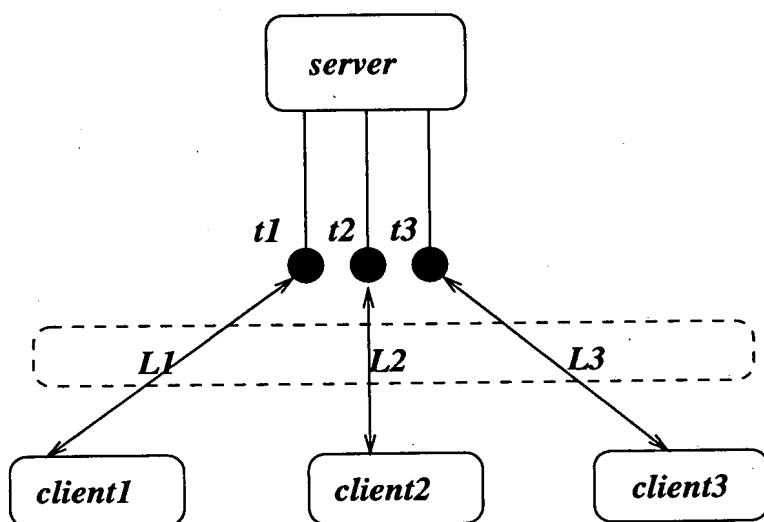


FIG. 6



L1: $\langle gS1, Client1Id \rangle$, $Client1Id = \langle Client1VMID, gCounterClient1 \rangle$

L2: $\langle gS2, Client2Id \rangle$, $Client2Id = \langle Client2VMID, gCounterClient2 \rangle$

L3: $\langle gS3, Client3Id \rangle$, $Client3Id = \langle Client3VMID, gCounterClient3 \rangle$

FIG. 7

Figure 8(a): read in Record Mode

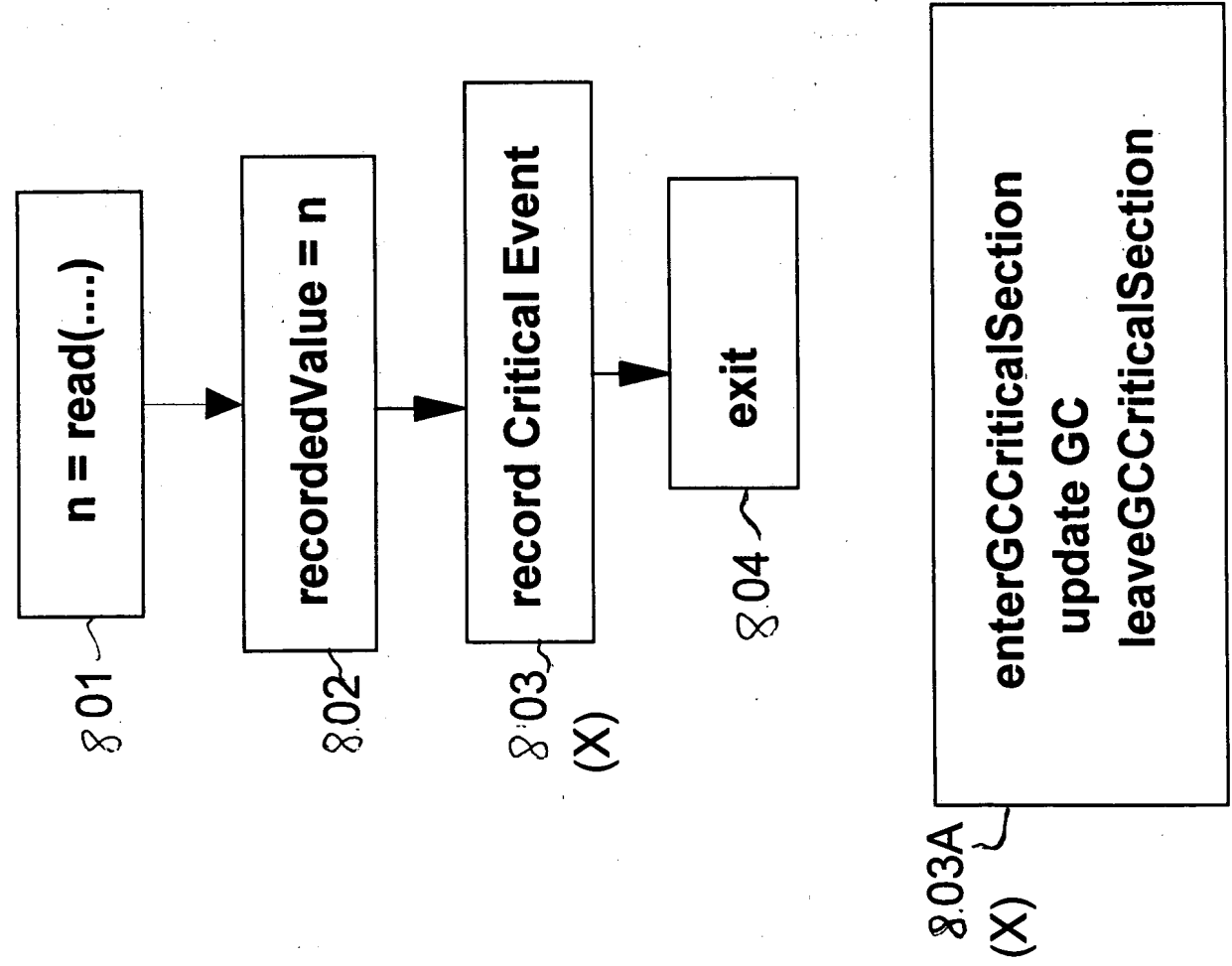
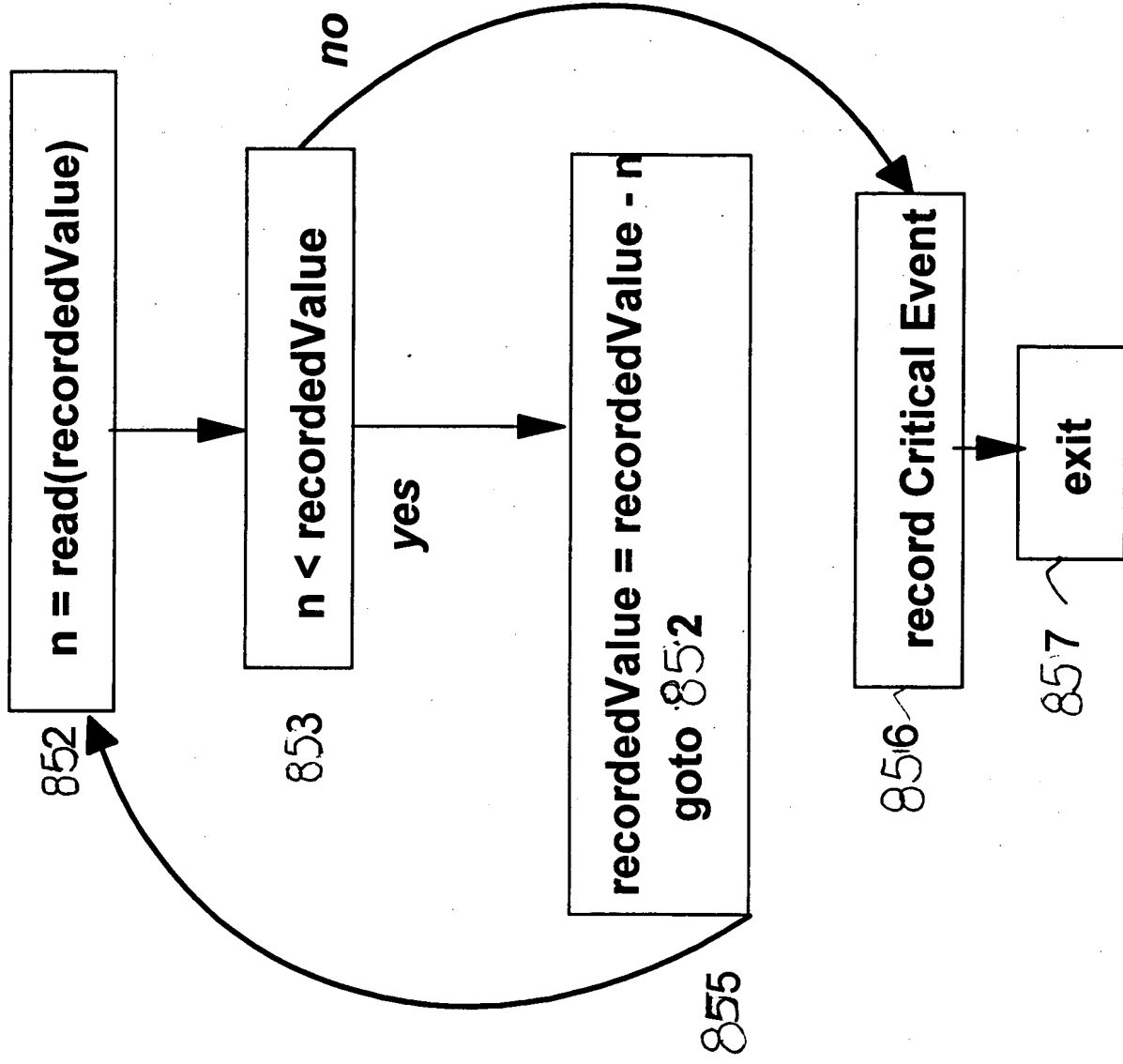


Figure 8(b): read in Replay Mode



856A

wait until GC = recorded GC
update GC

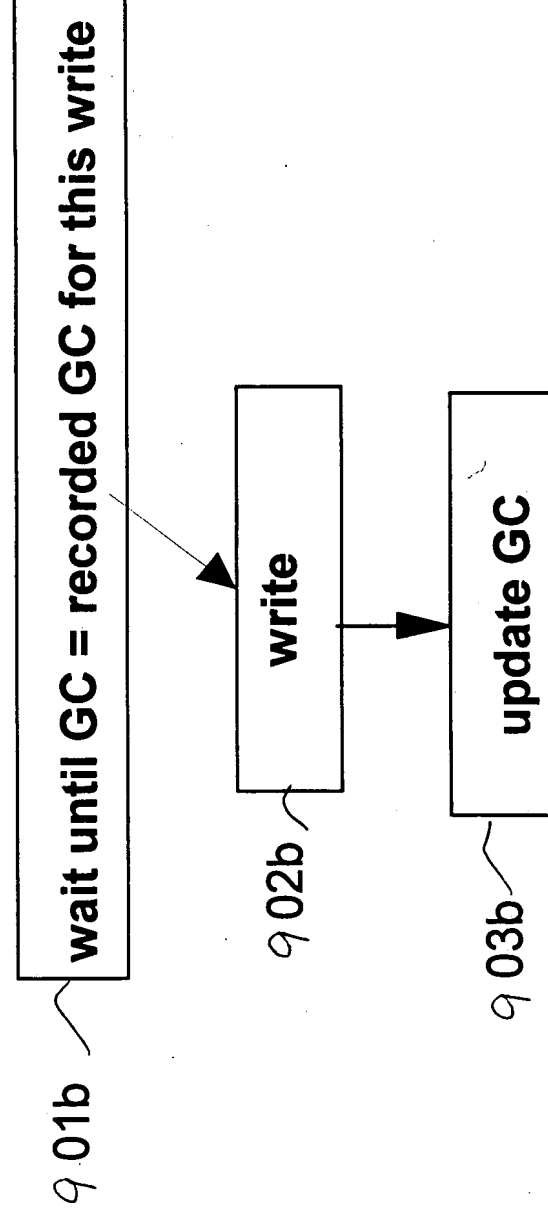
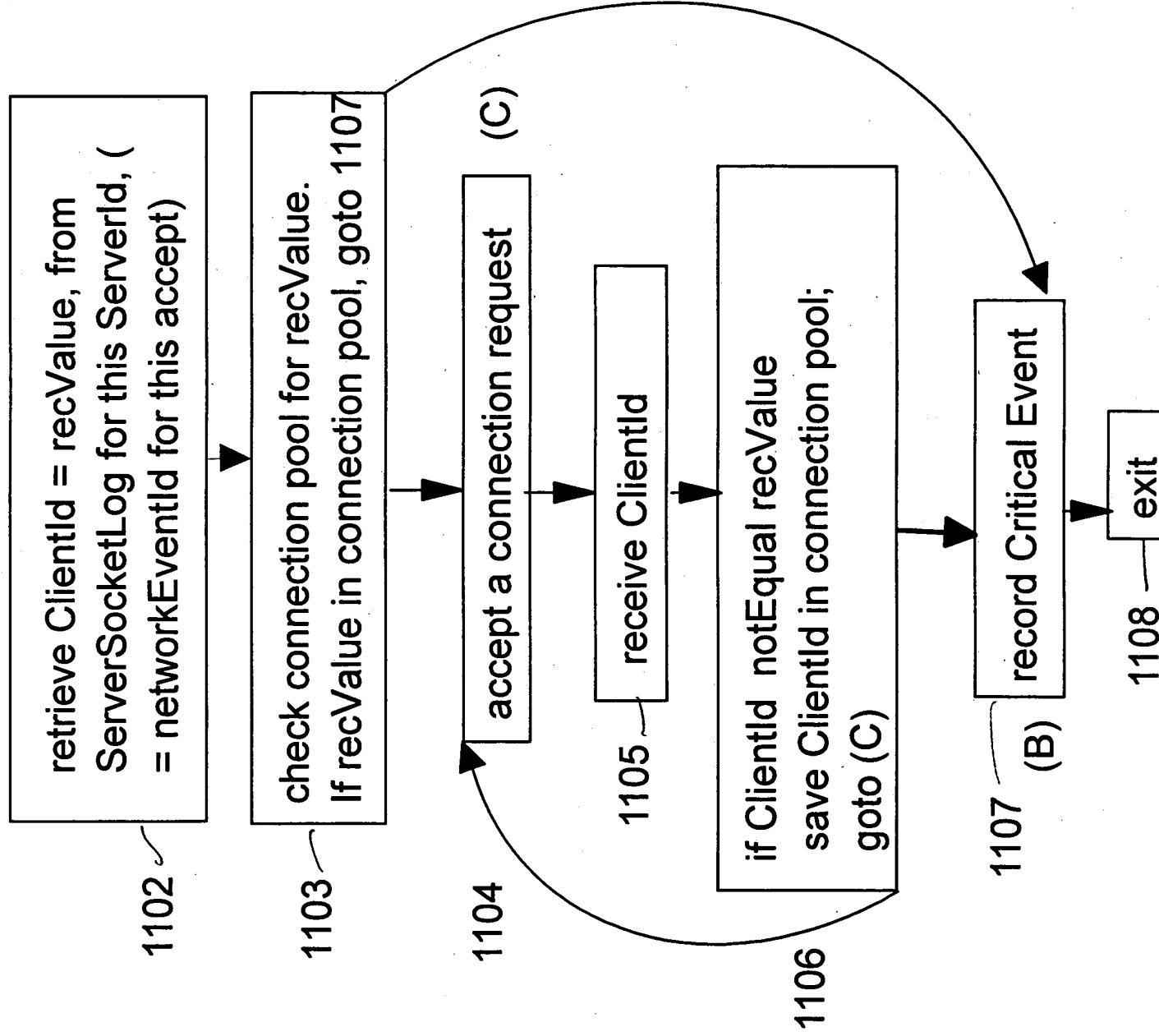


Figure 11: accept in Replay Mode

Serv_r



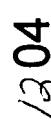
[illegible]

Figure 12(b): efficient replay of write

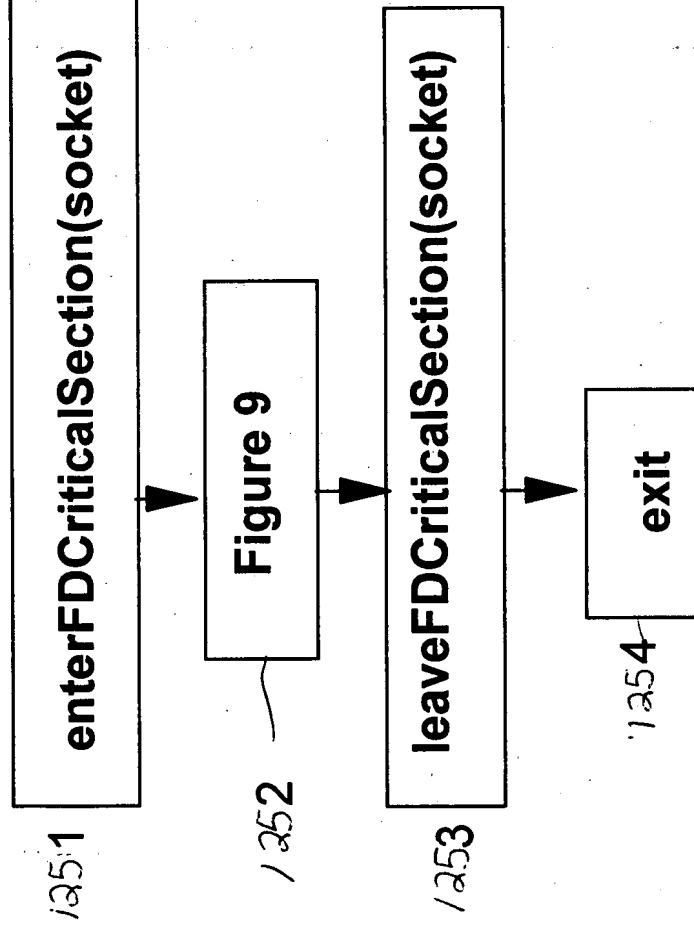


FIG 13.

